

Methodology for the 10 Economic Freedoms

The *Index of Economic Freedom* is constructed through analysis of 10 specific components of economic freedom, some of which are themselves composites of additional quantifiable measures. Each of the 10 economic freedoms is graded on a scale from 0 to 100. The 10 component scores are equally weighted and averaged to get an overall economic freedom score for each economy.

The following sections provide detailed descriptions of the methodology used to determine the scores for each of the 10 components of economic freedom.

FREEDOM #1: BUSINESS FREEDOM

Business freedom is a quantitative measure of the ability to start, operate, and close a business that represents the overall burden of regulation as well as the efficiency of government in the regulatory process. The business freedom score for each country is a number between 0 and 100, with 100 equaling the freest business environment. The score is based on 10 factors, all weighted equally, using data from the World Bank's *Doing Business* study:

- Starting a business—procedures (number);
- Starting a business—time (days);
- Starting a business—cost (% of income per capita);
- Starting a business—minimum capital (% of income per capita);
- Obtaining a license—procedures (number);¹
- Obtaining a license—time (days);
- Obtaining a license—cost (% of income per capita);
- Closing a business—time (years);
- Closing a business—cost (% of estate); and
- Closing a business—recovery rate (cents on the dollar).²

Each of these raw factors is converted to a scale of 0 to 100, after which the average of the converted values is computed. The result represents the country's business freedom score. For

1. Obtaining a license indicates necessary procedures, time, and cost in getting construction permits.

2. The recovery rate is a function of time and cost. However, the business freedom component uses all three subvariables to emphasize closing a business, starting a business, and dealing with licenses equally.

example, even if a country requires the highest number of procedures for starting a business, which yields a score of zero in that factor, it could still receive a score as high as 90 based on scores in the other nine factors.

Canada, for instance, receives scores of 100 in nine of the 10 factors, the exception being the 14 licensing procedures required by the government, which equates to a score of 64.5 for that factor.

Each factor is converted to a scale of 0 to 100 using the following equation:

$$\text{Factor Score}_i = 50 \times \text{factor}_{\text{average}} / \text{factor}_i$$

which is based on the ratio of the country data for each factor relative to the world average, multiplied by 50. For example, on average worldwide, it takes 18 procedures to get necessary licenses. Canada's 14 licensing procedures is a factor value better than the average, resulting in a ratio of 1.29. That ratio multiplied by 50 equals the final factor score of 64.5.

For the eight countries that are not covered by the World Bank's *Doing Business* study, business freedom is scored by looking into business regulations based on qualitative information from reliable and internationally recognized sources.³

Sources. Unless otherwise noted, the Index relies on the following sources in determining business freedom scores, in order of priority: World Bank, *Doing Business 2011*; Economist Intelligence Unit, *Country Report* and *Country Commerce*, 2008–2010; U.S. Department of Commerce, *Country Commercial Guide*, 2008–2010; and official government publications of each country.

FREEDOM #2: TRADE FREEDOM

Trade freedom is a composite measure of the absence of tariff and non-tariff barriers that affect imports and exports of goods and services. The trade freedom score is based on two inputs:

- The trade-weighted average tariff rate and
- Non-tariff barriers (NTBs).

Different imports entering a country can, and often do, face different tariffs. The weighted average tariff uses weights for each tariff based on the share of imports for each good. Weighted average tariffs are a purely quantitative measure and account for the basic calculation of the score using the following equation:

$$\text{Trade Freedom}_i = (((\text{Tariff}_{\text{max}} - \text{Tariff}_i) / (\text{Tariff}_{\text{max}} - \text{Tariff}_{\text{min}})) * 100) - \text{NTB}_i$$

where Trade Freedom_i represents the trade freedom in country i , $\text{Tariff}_{\text{max}}$ and $\text{Tariff}_{\text{min}}$ represent the upper and lower bounds for tariff rates (%), and Tariff_i represents the weighted average tariff rate (%) in country i . The minimum tariff is naturally zero percent, and the upper bound was set as 50 percent. An NTB penalty is then subtracted from the base score. The penalty of 5, 10, 15, or 20 points is assigned according to the following scale:

- **20**—NTBs are used extensively across many goods and services and/or act to effectively impede a significant amount of international trade.
- **15**—NTBs are widespread across many goods and services and/or act to impede a majority of potential international trade.

3. Eight countries are not covered by the World Bank's *Doing Business* study: Barbados, Burma, Cuba, North Korea, Libya, Macau, Malta, and Turkmenistan. The methodology for business freedom dates from the 2006 *Index* because of the limited availability of quantitative data before that date. For the 1995 through 2005 editions, we used a subjective assessment with a score of 1–5. Those earlier scores have been converted by means of a simple formula to make them comparable. Top scores were converted to 100, the next best to 85, and so on. This conversion formula is different from the one used for other subjective factors, but it is unique because those other factors are not bridging to a new, data-driven methodology.

- **10**—NTBs are used to protect certain goods and services and impede some international trade.
- **5**—NTBs are uncommon, protecting few goods and services, and/or have very limited impact on international trade.
- **0**—NTBs are not used to limit international trade.

We determine the extent of NTBs in a country's trade policy regime using both qualitative and quantitative information. Restrictive rules that hinder trade vary widely, and their overlapping and shifting nature makes their complexity difficult to gauge. The categories of NTBs considered in our penalty include:

- **Quantity restrictions**—import quotas; export limitations; voluntary export restraints; import–export embargoes and bans; countertrade, etc.
- **Price restrictions**—antidumping duties; countervailing duties; border tax adjustments; variable levies/tariff rate quotas.
- **Regulatory restrictions**—licensing; domestic content and mixing requirements; sanitary and phytosanitary standards (SPSs); safety and industrial standards regulations; packaging, labeling, and trademark regulations; advertising and media regulations.
- **Investment restrictions**—exchange and other financial controls.
- **Customs restrictions**—advance deposit requirements; customs valuation procedures; customs classification procedures; customs clearance procedures.
- **Direct government intervention**—subsidies and other aid; government industrial policy and regional development measures; government-financed research and other technology policies; national taxes and social insurance; competition policies; immigration policies; government procurement policies; state trading, government monopolies, and exclusive franchises.

As an example, India received a trade freedom score of 64.2. By itself, India's weighted average tariff of 7.9 percent would have yielded a score of 84.2, but the existence of significant NTBs in India reduced the score by 20 points.

Gathering data on tariffs to make a consistent cross-country comparison is a challenging task. Unlike data on inflation, for instance, countries do not report their weighted average tariff rate or simple average tariff rate every year; in some cases, the most recent year for which a country reported its tariff data could be as far back as 1999. To preserve consistency in grading the trade policy component, the *Index* uses the most recently reported weighted average tariff rate for a country from our primary source. If another reliable source reports more updated information on the country's tariff rate, this fact is noted, and the grading of this component may be reviewed if there is strong evidence that the most recently reported weighted average tariff rate is outdated.

The World Bank produces the most comprehensive and consistent information on weighted average applied tariff rates. When the weighted average applied tariff rate is not available, the *Index* uses the country's average applied tariff rate; and when the country's average applied tariff rate is not available, the weighted average or the simple average of most favored nation (MFN) tariff rates is used.⁴ In the very few cases where data on duties and customs revenues are not available, data on international trade taxes or an estimated effective tariff rate are used instead. In all cases, an effort is made to clarify the type of data used and the different sources for those data in the corresponding write-up for the trade policy component.

Sources. Unless otherwise noted, the *Index* relies on the following sources to determine scores for trade policy, in order of priority: World Bank, *World Development Indicators 2010* and *Data on Trade and Import Barriers: Trends in Average Applied Tariff Rates in Developing and Industrial Countries*,

4. MFN is now referred to as permanent normal trade relations (PNTR).

1981–2009; World Trade Organization, *Trade Policy Review*, 1995–2010; Office of the U.S. Trade Representative, *2010 National Trade Estimate Report on Foreign Trade Barriers*; World Bank, *Doing Business 2010* and *Doing Business 2011*; U.S. Department of Commerce, *Country Commercial Guide*, 2008–2010; Economist Intelligence Unit, *Country Report* and *Country Commerce*, 2008–2010; and official government publications of each country.

FREEDOM #3: FISCAL FREEDOM

Fiscal freedom is a measure of the tax burden imposed by government. It includes both the direct tax burden in terms of the top tax rates on individual and corporate incomes and the overall amount of tax revenue as a percentage of GDP. Thus, the fiscal freedom component is composed of three quantitative factors:

- The top tax rate on individual income,
- The top tax rate on corporate income, and
- Total tax revenue as a percentage of GDP.

In scoring the fiscal freedom component, each of these numerical variables is weighted equally as one-third of the factor. This equal weighting allows a country to achieve a score as high as 67 based on two of the factors even if it receives a score of 0 on the third.

Fiscal freedom scores are calculated with a quadratic cost function to reflect the diminishing revenue returns from very high rates of taxation. The data for each factor are converted to a 100-point scale using the following equation:

$$\text{Fiscal Freedom}_{ij} = 100 - \alpha (\text{Factor}_{ij})^2$$

where $\text{Fiscal Freedom}_{ij}$ represents the fiscal freedom in country i for factor j ; Factor_{ij} represents the value (based on a scale of 0 to 100) in country i for factor j ; and α is a coefficient set equal to 0.03. The minimum score for each factor is zero, which is not represented in the printed equation but was utilized because it means that no single high tax burden will make the other two factors irrelevant.

As an example, in the 2011 *Index*, Mauritius has a flat rate of 15 percent for both individual and corporate tax rates, which yields a score of 93.3 for each of the two factors. Mauritius' overall tax revenue as a portion of GDP is 19 percent, yielding a revenue factor score of 89.2. When the three factors are averaged together, Mauritius' overall fiscal freedom score becomes 91.9.

Sources. Unless otherwise noted, the *Index* relies on the following sources for information on taxation, in order of priority: Deloitte, *International Tax and Business Guide Highlights*; International Monetary Fund, *Staff Country Report*, "Selected Issues and Statistical Appendix," and *Staff Country Report*, "Article IV Consultation," 2008–2010; PricewaterhouseCoopers, *Worldwide Tax Summaries*, 2008–2010; countries' investment agencies; other government authorities (embassy confirmations and/or the country's treasury or tax authority); and Economist Intelligence Unit, *Country Report*, *Country Profile*, *Country Commerce*, or *Country Finance*, 2008–2010.

For information on tax revenue as a percentage of GDP, the primary sources (in order of priority) were Organisation for Economic Co-operation and Development data; Eurostat, Government Finance Statistics data; African Development Bank and Organisation for Economic Co-operation and Development, *African Economic Outlook 2010*; International Monetary Fund, *Staff Country Report*, "Selected Issues," and *Staff Country Report*, "Article IV Consultation," 2008–2010; Asian Development Bank, *Key Indicators of Developing Asian and Pacific Countries 2008–2010*; World Trade Organization, *Trade Policy Reviews*, 2008–2010; official government publications of each country; and individual contacts from government agencies and multinational organizations such as the IMF and World Bank.

FREEDOM #4: GOVERNMENT SPENDING

This component considers the level of government expenditures as a percentage of GDP. Government expenditures, including consumption and transfers, account for the entire score.

No attempt has been made to identify an ideal level of government expenditures. The ideal level will vary from country to country, depending on factors ranging from culture to geography to level of development. The methodology treats zero government spending as the benchmark, and underdeveloped countries with little government capacity may receive artificially high scores as a result. However, such governments, which can provide few if any public goods, will be penalized by lower scores on some of the other components of economic freedom (such as property rights and financial freedom).

The scale for scoring government spending is non-linear, which means that government spending that is close to zero is lightly penalized, while levels of government spending that exceed 30 percent of GDP receive much worse scores in a quadratic fashion (for example, doubling spending yields four times less freedom), so that only really large governments receive very low scores.

The expenditure equation used is:

$$GE_i = 100 - \alpha (\text{Expenditures}_i)^2$$

where GE_i represents the government expenditure score in country i ; Expenditures_i represents the total amount of government spending at all levels as a portion of GDP (between 0 and 100); and α is a coefficient to control for variation among scores (set at 0.03). The minimum component score is zero.

In most cases, general government expenditure data include all levels of government such as federal, state, and local. In cases where general government spending data are not available, data on central government expenditures are used instead.

Sources. Unless otherwise noted, the *Index* relies on the following sources for information on government intervention in the economy, in order of priority: Organisation for Economic Co-operation and Development data; Eurostat data; African Development Bank and Organisation for Economic Co-operation and Development, *African Economic Outlook 2010*; International Monetary Fund, *Staff Country Report*, "Selected Issues and Statistical Appendix," and *Staff Country Report*, "Article IV Consultation," 2008–2010; Asian Development Bank, *Key Indicators 2008–2010*; African Development Bank, *Selected Statistics on African Countries 2009*; official government publications of each country; and Economist Intelligence Unit, *Country Report* and *Country Profile*, 2008–2010.

FREEDOM #5: MONETARY FREEDOM

Monetary freedom combines a measure of price stability with an assessment of price controls. Both inflation and price controls distort market activity. Price stability without microeconomic intervention is the ideal state for the free market.

The score for the monetary freedom factor is based on two factors:

- The weighted average inflation rate for the most recent three years and
- Price controls.

The weighted average inflation rate for the most recent three years serves as the primary input into an equation that generates the base score for monetary freedom. The extent of price controls is then assessed as a penalty of up to 20 points subtracted from the base score. The two equations used to convert inflation rates into the monetary freedom score are:

$$\text{Weighted Avg. Inflation}_i = \theta_1 \text{Inflation}_{it} + \theta_2 \text{Inflation}_{it-1} + \theta_3 \text{Inflation}_{it-2}$$

$$\text{Monetary Freedom}_i = 100 - \alpha \sqrt{\text{Weighted Avg. Inflation}_i} - \text{PC penalty}_i$$

where θ_1 through θ_3 (thetas 1–3) represent three numbers that sum to 1 and are exponentially smaller in sequence (in this case, values of 0.665, 0.245, and 0.090, respectively); Inflation_{it} is the absolute value of the annual inflation rate in country i during year t as measured by the consumer price index; α represents a coefficient that stabilizes the variance of scores; and the price control (PC) penalty is an assigned value of 0–20 points based on the extent of price controls. The convex (square root) functional form was chosen to create separation among countries with low inflation rates. A concave functional form would essentially treat all hyperinflations as equally bad, whether they were 100 percent price increases annually or 100,000 percent, whereas the square root provides much more gradation. The α coefficient is set to equal 6.333, which converts a 10 percent inflation rate into a freedom score of 80.0 and a 2 percent inflation rate into a score of 91.0.

Sources. Unless otherwise noted, the *Index* relies on the following sources for data on monetary policy, in order of priority: International Monetary Fund, *International Financial Statistics Online*; International Monetary Fund, *World Economic Outlook April 2010*; Economist Intelligence Unit, *Country Report*, 2006–2010; and official government publications of each country.

FREEDOM #6: INVESTMENT FREEDOM

In an economically free country, there would be no constraints on the flow of investment capital. Individuals and firms would be allowed to move their resources into and out of specific activities both internally and across the country's borders without restriction. Such an ideal country would receive a score of 100 on the investment freedom component of the *Index of Economic Freedom*.

In practice, most countries have a variety of restrictions on investment. Some have different rules for foreign and domestic investment; some restrict access to foreign exchange; some impose restrictions on payments, transfers, and capital transactions; in some, certain industries are closed to foreign investment. Moreover, labor regulations, corruption, red tape, weak infrastructure, and political and security conditions can also affect the freedom that investors have in a market.

The *Index* evaluates a variety of restrictions typically imposed on investment. Points, as indicated below, are deducted from the ideal score of 100 for each of the restrictions found in a country's investment regime. It is not necessary for a government to impose all of the listed restrictions at the maximum level to effectively eliminate investment freedom. Those few governments that impose so many restrictions that they total more than 100 points in deductions have had their scores set at zero.

Investment restrictions:

National treatment of foreign investment

- No national treatment, prescreening 25 points deducted
- Some national treatment, some prescreening 15 points deducted
- Some national treatment or prescreening 5 points deducted

Foreign investment code

- No transparency and burdensome bureaucracy 20 points deducted
- Inefficient policy implementation and bureaucracy 10 points deducted
- Some investment laws and practices are non-transparent or inefficiently implemented 5 points deducted

Restrictions on land ownership

- All real estate purchases restricted 15 points deducted
- No foreign purchases of real estate 10 points deducted
- Some restrictions on purchases of real estate 5 points deducted

<i>Sectoral investment restrictions</i>	
• Multiple sectors restricted	20 points deducted
• Few sectors restricted	10 points deducted
• One or two sectors restricted	5 points deducted
<i>Expropriation of investments without fair compensation</i>	
• Common with no legal recourse	25 points deducted
• Common with some legal recourse	15 points deducted
• Uncommon, but occurs	5 points deducted
<i>Foreign exchange controls</i>	
• No access by foreigners or residents	25 points deducted
• Access available but heavily restricted	15 points deducted
• Access available with few restrictions	5 points deducted
<i>Capital controls</i>	
• No repatriation of profits; all transactions require government approval	25 points deducted
• Inward and outward capital movements require approval and face some restrictions	15 points deducted
• Most transfers approved with some restrictions	5 points deducted

Up to an additional 20 points may be deducted for security problems, a lack of basic investment infrastructure, or other government policies that indirectly burden the investment process and limit investment freedom.

Sources. Unless otherwise noted, the *Index* relies on the following sources for data on capital flows and foreign investment, in order of priority: official government publications of each country; Economist Intelligence Unit, *Country Commerce* and *Country Report*, 2006–2010; Office of the U.S. Trade Representative, 2010 *National Trade Estimate Report on Foreign Trade Barriers*; and U.S. Department of Commerce, *Country Commercial Guide*, 2008–2010.

FREEDOM #7: FINANCIAL FREEDOM

Financial freedom is a measure of banking efficiency as well as a measure of independence from government control and interference in the financial sector. State ownership of banks and other financial institutions such as insurers and capital markets reduces competition and generally lowers the level of available services. In an ideal banking and financing environment where a minimum level of government interference exists, independent central bank supervision and regulation of financial institutions are limited to enforcing contractual obligations and preventing fraud. Credit is allocated on market terms, and the government does not own financial institutions. Financial institutions provide various types of financial services to individuals and companies. Banks are free to extend credit, accept deposits, and conduct operations in foreign currencies. Foreign financial institutions operate freely and are treated the same as domestic institutions.

The *Index* scores an economy's financial freedom by looking into the following five broad areas:

- The extent of government regulation of financial services,
- The degree of state intervention in banks and other financial firms through direct and indirect ownership,
- The extent of financial and capital market development,
- Government influence on the allocation of credit, and
- Openness to foreign competition.

These five areas are considered to assess an economy's overall level of financial freedom that ensures easy and effective access to financing opportunities for people and businesses in the economy. An overall score on a scale of 0 to 100 is given to an economy's financial freedom through deductions from the ideal score of 100.

- **100—Negligible government influence.**
- **90—Minimal government influence.** Regulation of financial institutions is minimal but may extend beyond enforcing contractual obligations and preventing fraud.
- **80—Nominal government influence.** Government ownership of financial institutions is a small share of overall sector assets. Financial institutions face almost no restrictions on their ability to offer financial services.
- **70—Limited government influence.** Credit allocation is influenced by the government, and private allocation of credit faces almost no restrictions. Government ownership of financial institutions is sizeable. Foreign financial institutions are subject to few restrictions.
- **60—Significant government influence.** The central bank is not fully independent, its supervision and regulation of financial institutions are somewhat burdensome, and its ability to enforce contracts and prevent fraud is insufficient. The government exercises active ownership and control of financial institutions with a significant share of overall sector assets. The ability of financial institutions to offer financial services is subject to some restrictions.
- **50—Considerable government influence.** Credit allocation is significantly influenced by the government, and private allocation of credit faces significant barriers. The ability of financial institutions to offer financial services is subject to significant restrictions. Foreign financial institutions are subject to some restrictions.
- **40—Strong government influence.** The central bank is subject to government influence, its supervision of financial institutions is heavy-handed, and its ability to enforce contracts and prevent fraud is weak. The government exercises active ownership and control of financial institutions with a large minority share of overall sector assets.
- **30—Extensive government influence.** Credit allocation is extensively influenced by the government. The government owns or controls a majority of financial institutions or is in a dominant position. Financial institutions are heavily restricted, and bank formation faces significant barriers. Foreign financial institutions are subject to significant restrictions.
- **20—Heavy government influence.** The central bank is not independent, and its supervision of financial institutions is repressive. Foreign financial institutions are discouraged or highly constrained.
- **10—Near repressive.** Credit allocation is controlled by the government. Bank formation is restricted. Foreign financial institutions are prohibited.
- **0—Repressive.** Supervision and regulation are designed to prevent private financial institutions. Private financial institutions are prohibited.

Sources. Unless otherwise noted, the *Index* relies on the following sources for data on banking and finance, in order of priority: Economist Intelligence Unit, *Country Commerce*, *Country Finance*, and *Country Report*, 2008–2010; International Monetary Fund, *Staff Country Report*, “Selected Issues,” and *Staff Country Report*, “Article IV Consultation,” 2008–2010; Organisation for Economic Co-operation and Development, *Economic Survey*; official government publications of each country; U.S. Department of Commerce, *Country Commercial Guide*, 2008–2010; Office of the U.S. Trade Representative, *2010 National Trade Estimate Report on Foreign Trade Barriers*; U.S. Department of State, *Investment Climate Statements 2008–2010*; World Bank, *World Development Indicators 2010*; and various news and magazine articles on banking and finance.

FREEDOM #8: PROPERTY RIGHTS

The property rights component is an assessment of the ability of individuals to accumulate private property, secured by clear laws that are fully enforced by the state. It measures the degree to which a country's laws protect private property rights and the degree to which its government enforces those laws. It also assesses the likelihood that private property will be expropriated and analyzes the independence of the judiciary, the existence of corruption within the judiciary, and the ability of individuals and businesses to enforce contracts. The more certain the legal protection of property, the higher a country's score; similarly, the greater the chances of government expropriation of property, the lower a country's score. Countries that fall between two categories may receive an intermediate score.

Each country is graded according to the following criteria:

- **100**—Private property is guaranteed by the government. The court system enforces contracts efficiently and quickly. The justice system punishes those who unlawfully confiscate private property. There is no corruption or expropriation.
- **90**—Private property is guaranteed by the government. The court system enforces contracts efficiently. The justice system punishes those who unlawfully confiscate private property. Corruption is nearly nonexistent, and expropriation is highly unlikely.
- **80**—Private property is guaranteed by the government. The court system enforces contracts efficiently but with some delays. Corruption is minimal, and expropriation is highly unlikely.
- **70**—Private property is guaranteed by the government. The court system is subject to delays and is lax in enforcing contracts. Corruption is possible but rare, and expropriation is unlikely.
- **60**—Enforcement of property rights is lax and subject to delays. Corruption is possible but rare, and the judiciary may be influenced by other branches of government. Expropriation is unlikely.
- **50**—The court system is inefficient and subject to delays. Corruption may be present, and the judiciary may be influenced by other branches of government. Expropriation is possible but rare.
- **40**—The court system is highly inefficient, and delays are so long that they deter the use of the court system. Corruption is present, and the judiciary is influenced by other branches of government. Expropriation is possible.
- **30**—Property ownership is weakly protected. The court system is highly inefficient. Corruption is extensive, and the judiciary is strongly influenced by other branches of government. Expropriation is possible.
- **20**—Private property is weakly protected. The court system is so inefficient and corrupt that outside settlement and arbitration is the norm. Property rights are difficult to enforce. Judicial corruption is extensive. Expropriation is common.
- **10**—Private property is rarely protected, and almost all property belongs to the state. The country is in such chaos (for example, because of ongoing war) that protection of property is almost impossible to enforce. The judiciary is so corrupt that property is not protected effectively. Expropriation is common.
- **0**—Private property is outlawed, and all property belongs to the state. People do not have the right to sue others and do not have access to the courts. Corruption is endemic.

Sources. Unless otherwise noted, the *Index* relies on the following sources for information on property rights, in order of priority: Economist Intelligence Unit, *Country Report* and *Country Commerce*, 2008–2010; U.S. Department of Commerce, *Country Commercial Guide*, 2008–2010; U.S.

Department of State, *Country Reports on Human Rights Practices*, 2008–2010; and various news and magazine articles.

FREEDOM #9: FREEDOM FROM CORRUPTION

Corruption erodes economic freedom by introducing insecurity and uncertainty into economic relationships. The score for this component is derived primarily from Transparency International's Corruption Perceptions Index (CPI) for 2009, which measures the level of corruption in 180 countries.

The CPI is based on a 10-point scale in which a score of 10 indicates very little corruption and a score of 0 indicates a very corrupt government. In scoring freedom from corruption, the *Index* converts the raw CPI data to a scale of 0 to 100 by multiplying the CPI score by 10. For example, if a country's raw CPI data score is 5.5, its overall freedom from corruption score is 55.

For countries that are not covered in the CPI, the freedom from corruption score is determined by using the qualitative information from internationally recognized and reliable sources.⁵ This procedure considers the extent to which corruption prevails in a country. The higher the level of corruption, the lower the level of overall economic freedom and the lower a country's score.

Sources. Unless otherwise noted, the *Index* relies on the following sources for information on informal market activities, in order of priority: Transparency International, *Corruption Perceptions Index*, 2009; U.S. Department of Commerce, *Country Commercial Guide*, 2008–2010; Economist Intelligence Unit, *Country Commerce* and *Country Report*, 2008–2010; Office of the U.S. Trade Representative, *2010 National Trade Estimate Report on Foreign Trade Barriers*; and official government publications of each country.

FREEDOM #10: LABOR FREEDOM

The labor freedom component is a quantitative measure that looks into various aspects of the legal and regulatory framework of a country's labor market. It provides cross-country data on regulations concerning minimum wages; laws inhibiting layoffs; severance requirements; and measurable regulatory burdens on hiring, hours, and so on.

Six quantitative factors are equally weighted, with each counted as one-sixth of the labor freedom component:⁶

- Ratio of minimum wage to the average value added per worker,
- Hindrance to hiring additional workers,
- Rigidity of hours,
- Difficulty of firing redundant employees,
- Legally mandated notice period, and
- Mandatory severance pay.

Based on data from the World Bank's *Doing Business* study, these factors specifically examine labor regulations that affect "the hiring and redundancy of workers and the rigidity of working hours."⁷

5. Four countries are not covered by the 2009 CPI: the Bahamas, Fiji, Micronesia, and North Korea.

6. The labor freedom assessment in the 2009 *Index* expanded its factors to six from the four used in previous editions. This refinement was applied equally to past editions' labor freedom scores to maintain consistency. The assessment of labor freedom dates from the 2005 *Index* because of the limited availability of the quantitative data before that time.

7. For more detailed information on the data, see "Employing Workers" in World Bank, *Doing Business*, at <http://www.doingbusiness.org/MethodologySurveys/EmployingWorkers.aspx>. Reporting only raw data, the *Doing Business 2011* study discontinued all of the sub-indices of Employing Workers: the difficulty of hiring index, the rigidity of hours index, and the difficulty of redundancy index. For the labor freedom component of the 2011 *Index*, the three indices were reconstructed by *Index* authors, according to the methodology used previously by the *Doing Business* study.

In constructing the labor freedom score, each of the six factors is converted to a scale of 0 to 100 based on the following equation:

$$\text{Factor Score}_i = 50 \text{ factor}_{\text{average}} / \text{factor}_i$$

where country i data are calculated relative to the world average and then multiplied by 50. The six factor scores are then averaged for each country, yielding a labor freedom score.

The simple average of the converted values for the six factors is computed for the country's overall labor freedom score. For example, even if a country has the worst rigidity of hours in the world with a zero score for that factor, it could still get a score as high as 83.3 based on the other five factors.

For the eight countries that are not covered by the World Bank's *Doing Business* study, the labor freedom component is scored by looking into labor market flexibility based on qualitative information from other reliable and internationally recognized sources.⁸

Sources. Unless otherwise noted, the *Index* relies on the following sources for data on labor freedom, in order of priority: World Bank, *Doing Business 2010–2011*; Economist Intelligence Unit, *Country Report and Country Commerce, 2008–2010*; U.S. Department of Commerce, *Country Commercial Guide, 2008–2010*; and official government publications of each country.

ASSESSING OVERALL ECONOMIC FREEDOM

Equal Weight. In the *Index of Economic Freedom*, the 10 components of economic freedom are equally weighted so that the overall score will not be biased toward any one component or policy direction. It is clear that the 10 economic freedoms interact, but the exact mechanisms of this interaction are not easily definable. Is a minimum threshold for each one essential? Is it possible for one to maximize if others are minimized? Are they dependent or exclusive, complements or supplements?

These are valid questions, but they are beyond the scope of our fundamental mission. The purpose of the *Index* is to reflect the economic environment in every country studied in as balanced a way as possible. The *Index* has never been designed specifically to explain economic growth or any other dependent variable; that is ably done by empirical econometricians elsewhere. The raw data for each component are provided so that others can study, weight, and integrate as they see fit.

Period of Study. For the current *Index of Economic Freedom*, scores are generally based on data for the period covering the second half of 2009 through the first half of 2010. To the extent possible, the information considered for each factor was current as of June 30, 2010. It is important to understand, however, that some component scores are based on historical information. For example, the monetary freedom component is a three-year weighted average rate of inflation from January 1, 2007, to December 31, 2009.

CONTINUITY AND CHANGE

With more than 15 years of experience measuring economic freedom in over a hundred nations annually, we have found that two issues regularly challenge our methodology.

The first challenge has to do with outdated data. Country data in the most up-to-date sources are often several years old. Also, countries often make policy changes during the year of grading. Sometimes the policy changes are not reflected in official data, and sometimes the changes are proposed but not made law, or made law but not enforced. Additionally, a country can experience a violent conflict or catastrophe that interrupts all efforts to measure the economy.

8. See note 3.

The second challenge is the balance between quality and consistency of the *Index* itself. The benefit, for comparison purposes, of methodological consistency from one year to the next must be balanced against opportunities to incorporate new data and methods that improve the quality of the current year's scores.

Each time a change in methodology is implemented, we also attempt to make the scores continuous back to 1995. In this way, country performance is comparable from one year to the next.

Nevertheless, there are still some cases for which new data are not available going back to the first year, at least not at the same level of detail. There is a natural tension between the quality of the *Index* and the continuity of the *Index*. It would be easy to maintain perfect continuity if no changes were ever made, or *vice versa*, but we are committed to incorporating innovations into the methodology to optimize both the quality and continuity of the *Index* rather than simply maximizing one at the expense of the other.

Using the Most Currently Available Information. Analyzing economic freedom annually enables the *Index* to include the most recent information as it becomes available country by country. A cutoff date is used so that all countries are treated fairly. As described above, the period of study for the current year's *Index* considers all information as of the last day of June of the previous year (June 30, 2010). Any new legislative changes or policy actions effective after that date have no positive or negative impact.⁹

9. Occasionally, because the *Index* is published several months after the cutoff date for evaluation, more recent economic events cannot be factored into the scores. In the past, such occurrences have been uncommon and isolated to one region of the world. The Asian financial crisis, for example, erupted at the end of 1997 just as the 1998 *Index* was going to print. The policy changes in response to that crisis, therefore, were not considered in that year's scoring, but they were included in the next year's scores. Similarly, this year, the impact of government policies and more recently available macroeconomic statistics since the second half of 2010 have not affected the rankings for 2011 but will almost certainly show up in scores for the next edition of the *Index*.